

New York State Department of Transportation

Yellow Flag NB23U4W013

By: Malav Shah

Flag Date: April 26, 2023

Superseding Information:

This flag supersedes: YF NB2228W023

Structure Information

BIN: 1065318

Feature Carried: 278I278IX2M23027

Feature Crossed: 6TH AVENUE

Orientation: 8 - NORTHWEST

Region: 11 - NEW YORK CITY

County: KINGS

Political Unit: City of NEW YORK

Approximate Year Built: 1962

Posted Load Matches Inventory : Yes

Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E.

Date: April 26, 2023 11:00:00 AM

Of: NYSDOT Region 11

Signature Information

Signature: Malav Shah, P.E. 106620-1

Date: May 23, 2023

Reviewed By: Robert Kemp

Date: May 24, 2023

Attachments: 6

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 256			
	107 - Steel Open Girder/Beam	976	ft
	PR831 - Steel Beam End	40	each

Flagged Condition Description

This Yellow Flag No. NB23U4W013 supersedes Yellow Flag No. NB2228W023.

Location: Span 256 G4 at Pier 256

Description:

The girder web at the upper cope exhibits a 1-3/4" long diagonal crack that extends into a 3" H x 1" W corrosion hole (same as previously noted). The lower web above the bottom flange angle vertical leg has a 5/8"H x 1-1/4"W corrosion hole. (previously noted as 1" W x 1/2" H diameter corrosion hole).

There has been no significant changes since the previous inspection.

The affected member Girder G4 is a load path redundant built-up steel girder consisting of varying web depth x 3/8" thick and two equal leg angles (L 5" x 5" x 1/2") for the top and bottom flanges. The spacing between Girder G3 and G4 is 6'-11" on center and 3'-9" on center from G5.

Notes:

1. Additionally, the right side web of Girder G4 exhibits a 1'-8"L x 1" to 2"W area with 1/8" to 3/16"D section loss at the top web along the connection angle. The lower web exhibits a 1'-6" x 1'-6" area with 1/16" to 1/8" pitting. Surrounding the hole in lower web, the web exhibits a 5" x 5" area with 1/8" to 3/16"D section loss. The left side web of Girder G4 exhibits a 3"W x 6"H area at the cope with 1/8" to 3/16"D section loss. The lower web exhibits a 5"W x 8"H area with 1/8" to 3/16"D section loss adjacent to the connection angle. See sketch for details.

2. No deformation was observed in any part of Girder G4 connection to Pier 256 cap beam.

3. The adjacent Girder G3 was inspected in 2022 SILO Inspection and a mini-report for CS-3 condition was prepared for this location. The description of the 2022 inspection mini-report is as below:

The right side of Girder G3 web exhibits a 1" to 3"W x Full Height area with 1/16" to 1/8"D section loss along the connection angle. In addition, the top 3" of the right connection angle exhibit up to 1/8" D section loss. The left side of Girder G3 exhibits a 1" to 6" W x Full Height area with 1/8" to 3/16"D section loss along the connection angle. The lower web exhibits 1" to 3"H x 1'-3" long area with 1/16"D section loss along the bottom flange. In addition, the left connection angle exhibits up 1/4" thick pack rust x 3"H at the bottom.

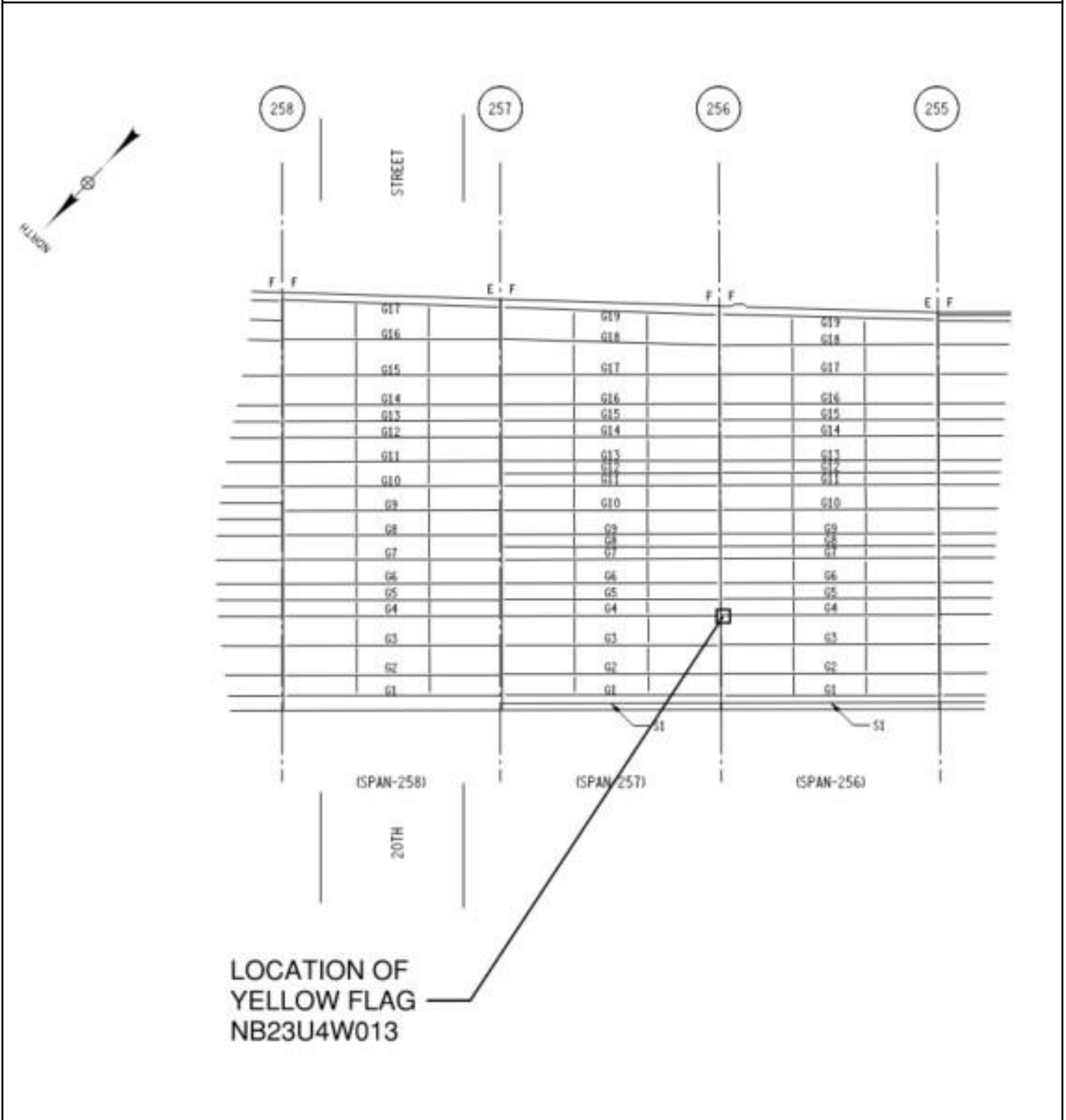
4. Girder G5 (right side) has repair plates at the web with moderate corrosion.

5. A right single lane closure on 3rd Avenue Eastbound between 20th and 21st streets with a 60' bucket truck was used to access platforms installed by contractor for on-going construction/painting work, to inspect this location.

Flag Photographs

Photo Number: 1

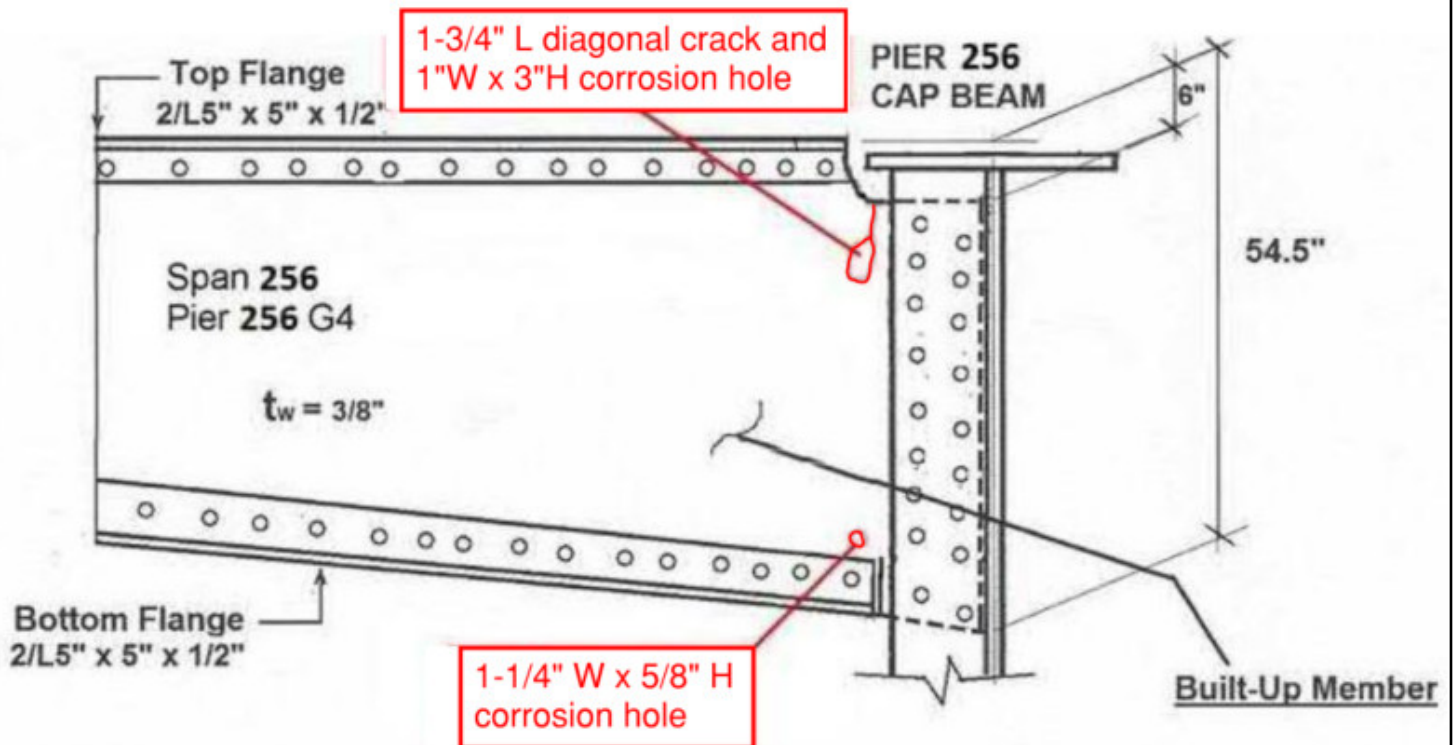
Photo Filename: NB23U4W013 LOCATION PLAN.JPG



Attachment Description: Flag Location Plan

Photo Number: 2

Photo Filename: NB23U4W013 Condition Sketch.JPG



Built-Up Member Properties

Vary depth web: 54.5" b-to-b Ls @ Piers 255 and 256 and 33" @ midspan

Web thickness = 3/8"

Bottom and Top Flanges are two equal leg angles L 5" x 5" x 1/2"

SKETCH FOR YELLOW # NB23U4W013
SPAN 256, GIRDER G4 AT PIER 256
(LOOKING LEFT)
N.T.S

Attachment Description: Flag Condition Sketch

Photo Number: 3

Photo Filename: SP 256 G4 @ P256 GV.JPG



Attachment Description: General View of Flag Condition Location. Looking End.

Photo Number: 4

Photo Filename: P4262597.JPG



Attachment Description: General view of Girder End with flagged location. Looking End Right.

Photo Number: 5

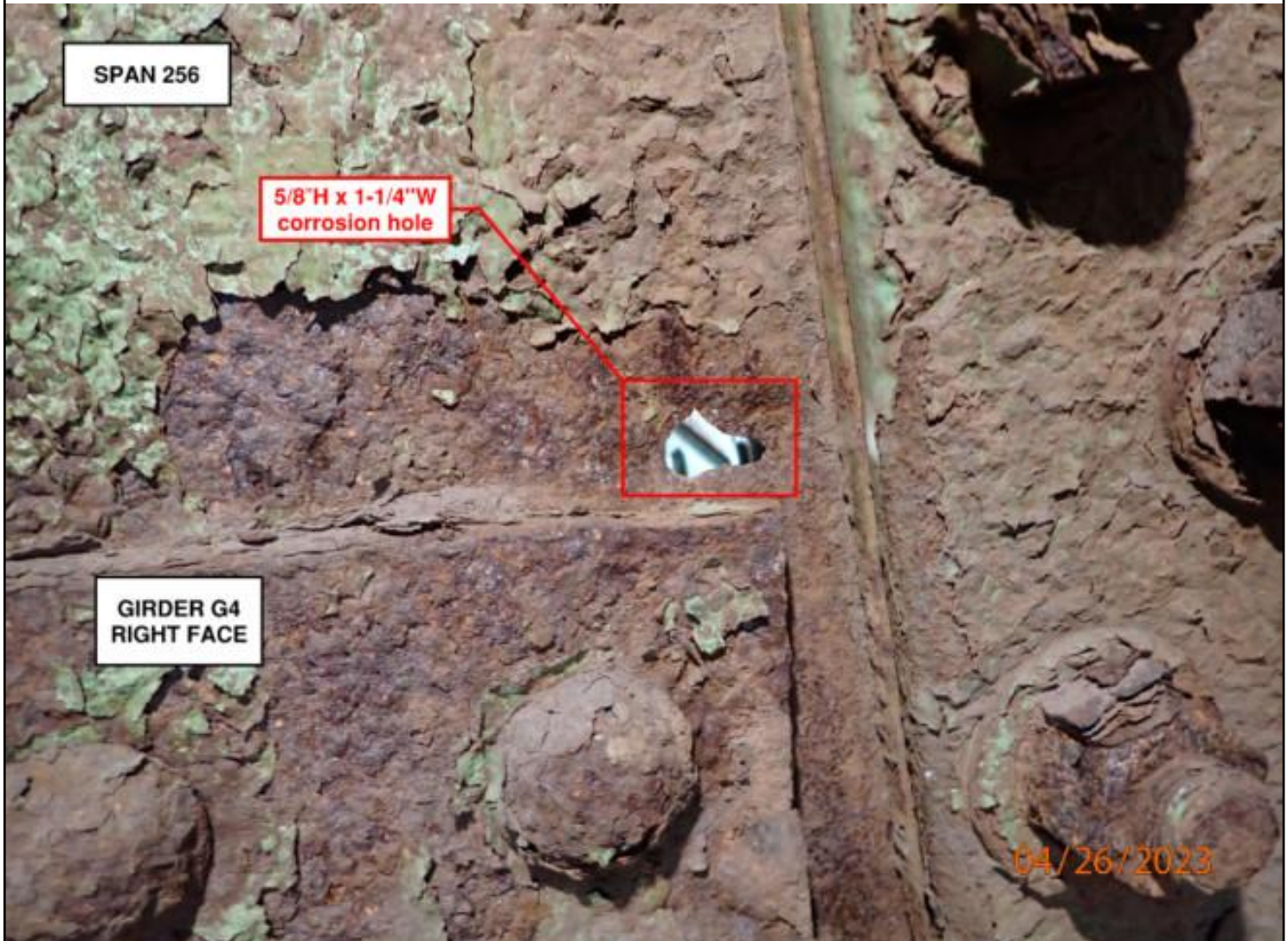
Photo Filename: P4262599.JPG



Attachment Description: Span 256 G4 at Pier 256 – Close up view of 1-3/4" long diagonal crack at upper cope and 3" H x 1" W corrosion hole at end of crack. Looking End - Right.

Photo Number: 6

Photo Filename: P4262603.JPG



Attachment Description: Span 256 G4 at Pier 256 – Close up view of 5/8"H x 1-1/4"W corrosion hole at lower web above bottom flange angle. Looking Left.